

Detailed Action

Response to Amendment

1. Applicant's Remarks/Arguments filed on 8/14/2009 regarding claims 1-3, 5-8, 10-12 have been considered. Claims 4, 9, 13 have been cancelled by applicant. Claims 1-3, 5-8, 10-12 are currently pending.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicant's representative, Mr. Nathaniel Wallace, on 11/18/2009.

The application has been amended for claims 6-8, 10 as follows:

6. (Currently Amended) A softswitch ~~computer program product~~ for handling Session Initiation Protocol ("SIP") messages for voice over Internet Packet call control, said ~~computer readable program code~~ softswitch comprising:

~~a computer readable program code, executable by a processor, configured to perform a method comprising:~~

a processor and software threads, the software threads being executed by the processor to perform a method comprising:

receiving a stream of SIP messages;

classifying each of the SIP messages as one of at least two message types;

placing said SIP messages in separate queues associated to the message types;

allocating SIP call control server processing resources to each queue according to a pre-defined policy associated with the message types, wherein the step of allocating SIP call control server processing resources comprises allocating a percentage of the SIP call control server processing resources to each of the queues; and

leaking the messages from at least one of the queues for enforcing a message overload protection for the associated message type.

7. (Currently Amended) The ~~computer-readable program code~~ softswitch of claim 6, wherein the step of classifying each of the SIP messages comprises classifying the messages as a REGISTER, INVITE, or RE-INVITE message.

8. (Currently Amended) The ~~computer-readable program code~~ softswitch of claim 7, wherein the step of classifying each of the SIP messages comprises classifying a message as an emergency call message by reading the destination address of a SIP INVITE message.

10. (Currently Amended) The ~~computer-readable program code~~ softswitch of claim 6, wherein the step of allocating the SIP call control server processing resources comprises controlling a rate at which messages from individual users are processed by a call control server, thereby preventing denial-of-service attacks on the call control server by individual servers in a packet-based VoIP infrastructure.

EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

3. The following is an examiner's statement of reasons for allowance:

The present application relates to providing a method and softswitch for handling session initiation protocol (SIP) messages for voice over Internet packet call control, including the unique functions of:

“the step of allocating SIP call control server processing resources comprises allocating a percentage of the SIP call control server processing resources to each of the queues; leaking the messages from at least one of the queues for enforcing a message overload protection for the associated message type.”

The closest prior art, Van Dyke et al. (US Publication 2004/0153497), discloses a method for receiving, classifying and placing SIP Invite messages into queues according to the message service type associated with the SIP Invite messages. Van Dyke further teaches allocating SIP service to each application processor for processing. However, Van Dyke fails to anticipate or render obvious the above quoted limitations of the present application. This renders the claims allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chi H Pham/
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